IN THE CLAIMS:

Please cancel claims 23 and 39-40, without prejudice, add new claims 45-46, and amend the claims as follows:

1-3. (Cancelled)

4. (Previously presented) An apparatus for electro-chemically depositing a metal film on a seed layer disposed on a substrate, comprising:

a substrate holder configured to hold a substrate;

an electrolyte cell configured to receive the substrate in a processing position;

an actuator connected to the substrate holder, the actuator being configured to adjustably position the substrate relative to the electrolyte cell; and

a sensor configured to sense an electric current density across the seed layer.

5. (Previously presented) An apparatus for electro-chemically depositing a metal film on a seed layer disposed on a substrate, comprising:

a substrate holder configured to hold a substrate;

an electrolyte cell having a body portion and an overflow portion, the overflow portion defining an opening for receiving the substrate in a processing position; and

an actuator connected to the substrate holder, the actuator being configured to adjustably position the substrate relative to the body portion of the electrolyte cell.

6. (Previously presented) An apparatus for electro-chemically depositing a metal film on a seed layer disposed on a substrate, comprising:

a substrate holder configured to hold a substrate;

an electrolyte cell configured to receive the substrate in a processing position;

an actuator connected to the substrate holder, the actuator being configured to bow the substrate relative to the electrolyte cell.

7-9. (Cancelled)

10. (Previously presented) A method of controlling uniformity in a deposition depth of a metal film from the center of a seed layer on a substrate to the periphery of the seed layer, the method comprising:

inserting a substrate having a seed layer into an electrolyte cell; and

bowing the substrate relative to the electrolyte cell.

11. (Previously presented) The method of claim 10, wherein sensing the uniformity of the electric current density is performed after the substrate has been removed from the electrolyte cell.

12. (Previously presented) A method for controlling uniformity of a deposition depth of a metal film from the center of a seed layer on a substrate to the periphery of the seed layer, the method comprising:

inserting a substrate having a seed layer into an electrolyte cell; and

adjusting the horizontal position of the substrate within the electrolyte cell.

13-15. (Cancelled)

16. (Previously presented) A method for electro-chemically depositing a metal film on a substrate having a metal seed layer, the method comprising:

disposing a substrate in an electrolyte cell having a body portion and an overflow portion, the overflow portion defining an opening for receiving the substrate in a processing position; and

adjustably positioning the substrate relative to the body portion of the electrolyte cell.

17. (Previously presented) The method of claim 16, wherein adjustably positioning comprises adjusting the vertical height of the substrate.

18-21. (Cancelled)

22. (Previously presented) A method for controlling uniformity of deposition rate of a metal film on a substrate, the method comprising:

disposing a substrate in an electrolyte cell; and

adjusting the lateral position of the substrate relative to the electrolyte cell to control the deposition rate.

23. (Cancelled)

24. (Currently amended) ~~The method of claim 23, further comprising~~ A method for controlling uniformity of deposition rate of a metal film on a substrate, the method comprising:

disposing a substrate in an electrolyte cell;

adjusting the curvature of the substrate relative to the electrolyte cell; and

determining the uniformity of the deposition layer by measuring the thickness of the metal film.

25. (Previously presented) An apparatus for electro-chemically depositing a metal film on a substrate having a metal seed layer, comprising:

a substrate holder for holding the substrate;

an electrolyte cell having a body portion and an overflow portion, the overflow portion defining an opening for receiving the substrate in a processing position;

an actuator connected to the substrate holder for displacing the substrate holder in a substantially vertical direction to adjust the position of the substrate relative to the body portion of the electrolyte cell; and

a metal deposition portion that provides for deposition of the metal film on the metal seed layer.

26. (Previously presented) A method for electro-chemically depositing a metal film on a seed layer disposed on a substrate, comprising:

disposing a substrate in an electrolyte cell having a body portion and an overflow portion, the substrate being disposed above an upper edge of the body portion;

varying a distance between the substrate and the upper edge of the body portion; and

contacting a seed layer disposed on the substrate with an electrolyte solution.

27. (Previously presented) The method of claim 26, wherein varying the distance comprises varying a vertical distance between the substrate and the upper edge of the body portion.

28. (Previously presented) The apparatus of claim 5, wherein the actuator is configured to position the substrate in a lateral direction relative to the electrolyte cell.

29. (Previously presented) The apparatus of claim 5, wherein the actuator is configured to bow the substrate so that the center of the substrate is closer to an anode disposed in the electrolyte cell than the periphery of the substrate.

30. (Previously presented) The apparatus of claim 5, wherein the actuator is configured to vary a vertical distance between the substrate and the body portion.

31. (Previously presented) The method of claim 10, wherein bowing the substrate comprises:

applying a downward force to the substrate at a position between the center of the substrate and the periphery of the substrate; and

applying an upward force to the substrate at the periphery of the substrate.

32. (Previously presented) An apparatus for electro-chemically depositing a metal film on a seed layer disposed on a substrate, comprising:

an electrolyte cell configured to receive a substrate in a processing position; and

a substrate holder having a thrust plate and a plurality of contact elements, the substrate holder being configured to hold the substrate between the thrust plate and the contact elements and to vary a cross-sectional shape of the substrate.

33. (Previously presented) The apparatus of claim 32, wherein the thrust plate is configured to apply a downward force.

34. (Previously presented) The apparatus of claim 32, wherein the contact elements are configured to apply an upward force.

35. (Previously presented) The apparatus of claim 32, wherein the thrust plate is configured to apply a downward force and the contact elements are configured to apply an upward force.

36. (Previously presented) The apparatus of claim 32, wherein the thrust plate has a diameter smaller than the contact elements.

37. (Previously presented) The apparatus of claim 32, wherein the cross-sectional shape of the substrate is such that a center of the substrate is lower than a periphery of the substrate.

38. (Previously presented) The apparatus of claim 37, wherein the electrolyte cell comprises an anode disposed therein, and wherein the cross-sectional shape of the substrate is such that the center of the substrate is closer to the anode than the periphery of the substrate during processing.

39-40. (Cancelled)

41. (Currently amended) ~~The method of claim 23, wherein adjusting the curvature of the substrate comprises:~~ A method for controlling uniformity of deposition rate of a metal film on a substrate, the method comprising:

disposing a substrate in an electrolyte cell; and

adjusting the curvature of the substrate relative to the electrolyte cell by applying a downward force at the center of the substrate[[;]] and applying an upward force at the periphery of the substrate.

42. (Previously presented) The apparatus of claim 5, wherein the actuator is configured to adjust a vertical distance between the substrate and the body portion of the electrolyte cell.

43. (Previously presented) The apparatus of claim 5, wherein a diameter of the body portion is substantially the same as a diameter of the substrate.

44. (Previously presented) An apparatus for electro-chemically depositing a metal film on a seed layer disposed on a substrate, comprising:

a substrate holder configured to hold a substrate;

an electrolyte cell configured to receive the substrate in the processing position and adapted to have an inner diameter substantially the same as a diameter of the substrate,

a contact ring coupled to the substrate holder configured to dispose the substrate on the contact ring in a processing position, the contact ring and the electrolyte cell defining a gap therebetween; and

an actuator coupled to the substrate holder, the actuator being configured to vary a distance defined by the gap.

45. (New) The method of claim 41, wherein adjusting the curvature of the substrate comprises bowing the substrate.

46. (New) The method of claim 41, wherein adjusting the curvature of the substrate comprises adjusting the center of the substrate and periphery of the substrate so that the center of the substrate is not on the same plane as the periphery of the substrate.